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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/141,443	08/27/98	WALEH	A D-95013A

EXAMINER	
MARKOFF, A	
ART UNIT	**PAPER NUMBER**
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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 09/141,443	Applicant(s) WALEH ET AL.	
	Examiner Alexander Markoff	Art Unit 1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

1)☒ Responsive to communication(s) filed on *18 February 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-23 and 25-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-23 and 25-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a)☐ All b)☐ Some * c)☐ None of the CERTIFIED copies of the priority documents have been:

1.☐ received.

2.☐ received in Application No. (Series Code / Serial Number) _____ .

3.☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

14) ☐ Notice of References Cited (PTO-892)
15) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
16) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *5* .
17) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
18) ☐ Notice of Informal Patent Application (PTO-152)
19) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 6, 7, 9, 11, 14, 16, 18, 20, 21, 27 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 6 and 7 are still indefinite because claim 6 utilize the same letters (a, b and b) as claim 1 to designate different processing steps. It is also not clear whether or not steps (a) recited by claims 1 and 6 are the same. It is further not clear whether the steps (a1) and (a2) are part of the step (a).

Claims 9, 16, 21 and 27 are indefinite because it is not clear how different gasses (active and inert) can be selected from the same group of gases.

Claim 11 is indefinite because the term "suitable is relative in nature lacking proper comparative basis. It is also not clear whether or not the "electromagnetic radiation" must include UV radiation.

Claims 14, 18, 20 and 29 are indefinite because it contains an improper Markush group in which a broad recitation of electromagnetic radiation is followed by a narrow limitation of UV radiation. UV radiation is electromagnetic radiation.

Claim Objections

3. Claims 3-5 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. These claims fail to further limit the subject mater of claim 1. In contrast these claims provide even broader limitation for the substrates than claim 1.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3-23 and 25-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Settineri et al (US Patent No 4,363,673).

Settineri et al teach (see entire document) a method for removing organic compounds from substrates, including metal and ceramic (glass) substrates.

The method comprises subjecting the substrates to a vapor of water-free sulfur trioxide alone or in mixture with other gases such as nitrogen.

The subjecting step is conducted at claimed temperatures. The contact times disclosed by the reference are inside of the claimed region.

The subjecting step is conducted after a pretreatment such as heating and/or flushing with gases such as nitrogen.

The sulfur trioxide treatment is followed by a step of subjecting substrates to a gas stream (nitrogen) to remove sulfur trioxide. At some embodiments this step is conducted at the same temperature elevated temperatures as the sulfur trioxide treatment.

After removing sulfur trioxide the substrates are subjected to one or more rinsing steps. The rinsing agents disclosed by the reference are the same as claimed.

The substrates are subjected to kinetic energy (stirring) during the rinsing.

The rinsed substrates are subjected to a drying process, such as nitrogen drying.

It is also noted that the use of kinetic energy in post rinse treatment is inherently disclosed by the disclosure of nitrogen drying, because nitrogen streams used for drying would apply kinetic energy to substrates.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1, 3-23 and 25-30 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-31 of U.S. Patent No. 5,763,016. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following:

> Claims of US 5,763,016 are directed to a method for preparing desired patterns in organic coatings, layers and films. The claims of the instant Application are directed to a method for partially or completely removing such coatings, layers and films. The coatings, layers and films of the claims of US 5,763,016 and of the claims of the instant application are the same. The substrates, which are subject of the method of US 5,763,016 and the claims of the instant Application are the same. In both methods the substrates are subjected to a precursor chemical or physical treatment, followed by treatment with a vapor of water-free

sulfur trioxide. The difference between the method of US 5,763,016 and the claims of the instant Application is in required by the instant claims steps of a solvent rinsing and a post rinse treatment. The claims of US 5,736,016 do not specifically recite such combination.

However, the claims of US 5,736,016 recite the step of subsequent treatment, which can be exposure to the same solvent as claimed. See claims 15, 17 and 30.

It would have been obvious to an ordinary artisan that after such solvent exposure the substrates would be subjected to further conventional steps such as drying and/or transferring to another processing station where they would be subjected to further (physical and/or chemical) processing.

Moreover, claim 31 of US 5,736,016 recites to different subsequent treatment (steps 6 and 7) which are not specified. Accordingly it would have been obvious to an ordinary artisan that any method disclosed by other claims for subsequent treatments (including ones recited by claims 15, 17 and 30) can be utilized with reasonable expectation of adequate results in the method of claim 31. The use of the solvent exposure for step 6 of claim 31 would lead to the claims of the instant Application.

Response to Arguments

5. Applicant's arguments filed 2/18/00 have been fully considered but they are not persuasive.

The Applicants argue that the claims as amended are in compliance with the requirements of 35 USC 112(2).

The Examiner disagrees, because some of the claims are still indefinite. See the rejection above.

The Applicants argue that Settineri et al does not teach removal of the specifically claimed coatings, films, layers and residues from the specifically claimed substrates.

This is not persuasive because the residue of "various organic compounds", which recited by Settineri et al, meet the limitation of the residue of the "photosensitive and non-photosensitive organic materials", which recited by the claims. This is because, the recitation of the "photosensitive and non-photosensitive organic materials" would be met by any organic material. It is also noted that the "ceramic" surfaces and devices, which recited by Settineri et al, meet the limitation of "ceramic devices", which recited by the claims. It is also noted that claims 3-5 which still recite the substrates being metals and metal alloys, i.e. the substrates disclosed by Settineri et al.

The Applicants argue that claim 6 requires a "separate precursor chemical or precursor physical treatment prior to heating and/or flushing with nitrogen"

These is not persuasive because claims 6 in contrast to the Applicants statement does not require conducting the precursor treatment prior to heating and/or flushing with nitrogen. The claim as amended does not require conducting the precursor treatment step (a) prior to the step of purging (a2) , the claim is silent regarding the heating, the claim does not even exclude the embodiment when the purging is the precursor treatment.

Settineri et al teach the process which meets the limitations of the claim by disclosure of heating to remove residual surface moisture and by purging the atmosphere around the substrate to remove water vapor. See column 1, lines 50-61.

Moreover, at least at some embodiments Settineri et al teach conducting different rinsing steps and drying prior to the placing the substrate into the chamber. See Examples 7-9.

The Applicants argue that they use the precursor treatment "to modify the organic film ... prior to the application of heat and/or flushing with nitrogen disclosed by Settineri et al".

This argument is not persuasive and could not be understood.

First, the claim is silent regarding the modification of the film.

Second, at least one of the disclosed precursor treatments (according to the Applicants) consists of exposure to inert process gases such as nitrogen, i.e. is exactly what is disclosed by the Settineri et al.

Third, it is not relevant whether or not the step is disclosed for the same or a different purpose if the method of the prior art includes the same steps.

The Applicants argue that the post rinse treatment in Settineri et al is for the different purpose than in the method of the invention.

This is not persuasive.

First, it is noted that claims are silent regarding the purpose of the post rinse treatment.

Second, without the discussing whether or not the Applicants are correct regarding the purpose of the post rinse treatment in Settineri et al and whether or not the purposes of the steps are indeed different, the Examiner would like to note that the claimed method is anticipated by the prior art. This is because the prior art teaches a method comprising the same steps as claimed.

The Applicants argue (it is believed that this argument is relevant to the subject matter of claims 20-22) that Settineri et al do not disclose "the requirement for a treatment to be made simultaneously with exposure to sulfur trioxide for the purpose of effectiveness". They further argue that "Settineri et al's disclosure of the use of nitrogen is specified as means of merely allowing the sulfur trioxide mechanism to function".

This is not persuasive. The Examiner, without analyzing whether or not the Applicants are correct regarding the purpose of the nitrogen (or air, or solvents) would like to note the following:

First, the claims are silent regarding the purpose of the referenced step.

Second, when the prior art discloses the same steps utilizing the same compounds as claimed, the prior art anticipates the claims. In the instant case the referenced the claims require a simultaneous exposure of residues to sulfur trioxide and gases such nitrogen. Settineri et al teach a simultaneous exposure to sulfur trioxide and nitrogen. It means that the claims are anticipated by Settineri et al.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Markoff whose telephone number is 703-308-7545. The examiner can normally be reached on Monday - Friday 8:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on 703-308-4333. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7719 for regular communications and 703-305-7718 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

Alexander Markoff
Art Unit 1746

am
May 5, 2000